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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/825,300

04/16/2004

Hiroshi Takahashi

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7590

07/28/2006

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EXAMINER

BEATTY, ROBERT B

ART UNIT

PAPER NUMBER

2852

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/825,300	TAKAHASHI ET AL.	
	Examiner	Art Unit	
	Robert Beatty	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 14-16 is/are rejected.
- 7) ☒ Claim(s) 10-13 and 17-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. The disclosure is objected to because of the following informalities:

on page 22, line 17, change "form" to --from--;

on page 26, lines 2, 7,14,19,21 and page 30, line 24, the word "root" is unclear in this context;

Appropriate correction is required.

2. Claims 7-13, 17-20 are objected to because of the following informalities:

in claim 7, lines 1-3 are unclear because applicant calls for a "structure of a frame-side plate frame..." comprising various parts of an image forming apparatus but the frame, per se, cannot include parts of an image forming apparatus. It is assumed that the applicant is claiming an "image forming apparatus" and should so claim however please compare to claims 14-20 which appear similar.

in claims 10,12,17, 19, the word "root" is not understood in this context;

Appropriate correction is required.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al. in view of Mochimaru et al.

Abe et al. teach an image forming apparatus for forming a visible image on a recording sheet by an image forming section 7 and ejecting the recording sheet above the image forming section into an ejection tray 3a (see Fig. 1) located above the image forming section. A conveyance unit 3 (see Fig. 6) is located to the side of the image forming section and includes a transfer roller 39, a fixing device 11, and a upward conveyance rollers 37,41. The conveyance unit attachable detachable via pivot 57 (col. 9, lines 10-25 through the front of the image forming apparatus. Specifically, Abe et al. teach everything claimed except the ejection tray being "internal" to the image forming apparatus.

Mochimaru et al. teach an image forming apparatus comprising a ejection tray 31 located above a image forming unit 2Bk, 2M, 2C, 2Y,3 (see Fig. 4) and a conveyance unit 1B pivotable about a pivot 35. The conveyance unit includes a transfer belt 15, part of the fixing device 30A, and one of a pair of conveyance rollers. As seen in Figs 12-14, the image forming apparatus can be configured to have a ADF and a scanner above the ejection tray rendering the ejection tray "internal". It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abe et al. to have a scanner/ADF above the ejection tray because the image forming apparatus can act as a copier (not just a printer) thus adding flexibility to an operator of the apparatus.

4. Claims 7-9 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirota et al. in view of JP# 2002-14555.

Hirota et al. teach an image forming apparatus comprising an image forming part 4, an internal ejection tray 50 above the image forming unit (see Fig. 5), a transfer device (not labeled but part of the image forming part), a fixing unit 7, and conveyance rollers such as 8, for conveyance a sheet from a paper supply 6 past the image forming part and to the ejection tray. Specifically, Hirota et al. teach everything claimed except the transfer device, fixing unit, and conveyance rollers incorporated in a single unit which is removable from a front side of the image forming apparatus through a opening in a reinforcing frame member having a protruding part. In addition, using pipe frames for the image forming apparatus is not taught.

JP# 2002-14555 teach an image forming apparatus comprising an image forming unit 2, a transfer device 32, a fixing device 34, and conveyance rollers 31,35 for conveying the sheet from a paper supply past the image forming unit and to an ejection tray (see Fig. 1). As seen in Fig. 2-3, the transfer device, fixing unit, and conveyance rollers are all integral to a removable unit which is removable from a front frame member (see Fig. 5) through an opening in the frame member. The frame member has a "protruding portion" to accommodate, for example, the fixing device (i.e. it is not perfectly square or rectangular). It would have been obvious to

one of ordinary skill in the art at the time the invention was made to modify Hirota et al. to have an removable unit comprising the transfer unit, fixing unit, and conveyance rollers which would be removable through a frame member in the apparatus because if refurbishing/ reconditioning/ or jam removal is necessary, it would be easy to access these parts of the image forming apparatus without undue effort (e.g. dismantling the entire apparatus). In addition, the examiner takes Official Notice that the use of pipe frame members for use in the construction of an image forming member are very well known in the art to provide adequate structural integrity to the apparatus.

5. Claims 10-13, 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kikuchi et al., Otaka, Otsuki et al., Sumi et al., Komoda et al., and Chiku et al. (JP) all teach various image forming apparatus with removable integral parts associated with the conveyance path.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Beatty whose telephone number is (571) 272-2130. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray, can be reached on (571) 272-2119. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Robert Beatty', with a stylized, cursive script.

Robert Beatty
Primary Examiner
Art Unit 2852